

**PROTOCOL FOR MONITORING THE
WHITE GARDEN SNAIL ERADICATION PROJECT, SPRING 1987**

I. OBJECTIVE

To monitor the environmental levels of the pesticides used for the White Garden Snail Eradication Project.

II. PERSONNEL

Monitoring of the spray program will be conducted by the California Department of Food and Agriculture's (CDFA) Environmental Hazards Assessment Program (EHAP). This monitoring program will be under the overall supervision of Don Weaver. Other key EHAP personnel are listed below.

Randy Segawa - Supervision of all aspects of the White Garden Snail monitoring program.

Mary Brown - Responsible for the dissemination of monitoring results, and liaison for other agencies, public and media.

ALL QUESTIONS CONCERNING THIS PROGRAM SHOULD BE DIRECTED TO MARY BROWN AT 916 324-8916 or ATSS 454-8916.

III. MONITORING PLAN

Monitoring will take place in San Diego County, and will be initiated at the same time as the treatment program in mid-March. Samples of soil and vegetation will be collected and analyzed for methiocarb, methiocarb breakdown products and/or metaldehyde.

A. Soil (72 samples)

1. Experimental Plots - Two experimental plots will be established within the treatment area to determine dissipation rates in

soil. Special procedures to insure precise and accurate pesticide applications may be used. Two replicate samples will be collected from each plot at nine sampling intervals following the first application only.

2. Residential Properties - Two replicate samples will be collected from two properties once a week for nine weeks. These samples will be used to estimate the variation of soil residues throughout the treatment period.

B. Vegetation (24 samples)

Treated garden areas will be sampled if feasible to determine if any soil-plant translocation occurs. A maximum of two properties will be sampled for two plant types. Replicate samples will be collected every three weeks.

IV. SAMPLE STORAGE AND SECURITY

All sampling media and containers will be prepared and prenumbered at the CDFA Meadowview Operations Center. Each container will be shipped to the sampling sites with an accompanying chain of custody record. The chain of custody will be filled out by all persons handling the sample. This form will also be used to record sampling data and the results of the chemical analysis. After collection, all samples will be immediately cooled with wet or dry ice, and kept refrigerated or frozen until analysis.

V. CHEMICAL ANALYSIS AND QUALITY CONTROL

The chemical analysis will be performed by the Los Angeles County Environmental Toxicology Laboratory, and other laboratories as necessary. Samples will be analyzed for methiocarb, methiocarb

sulfoxide, methiocarb sulfone, and/or metaldehyde, with the following quality control measures:

A. Methods Development

1. Blank-Matrix Spikes - 5 replicate at each of 2 levels
2. Standards - 5 replicate injections

B. Continuing Quality Control

1. Solvent Spikes - 1 per extraction set
2. Solvent Blank Analyses - 1 per extraction set
3. Blank-Matrix Spikes - 1 per extraction set
4. Replicate Extract Injections - 5 replicate injections for 2% of samples
5. Split Matrix Samples - 5% of actual samples

Contact EHAP for further explanation of analytical methods and quality control.